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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/011,863	11/12/2001	Damoder Reddy	SMA-001.1D	6005

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EXAMINER

NGUYEN, KHIEM D

ART UNIT

PAPER NUMBER

2823

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/011,863

Applicant(s)

REDDY, DAMODER

Examiner

Khiem D Nguyen

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 05/01/2003 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 102

The rejection under 35 U.S.C. 112, second paragraph, to claims 1-3 is withdrawn in response to applicants' amendments.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in-
 - (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
 - (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

1. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Tuttle et al. (U.S. Patent 6,375,780).

Tuttle teaches an integrated circuit structure comprising (See FIGS. 1A-15 and related text):

a plastic substrate (FIG. 5A, 68) and a layer of silicon nitride having a thickness such that little or no differential strain between the substrate and the layer occurs at any temperature in the normal operating temperature range of the integrated circuit (col. 13, lines 19-28);

an antenna conductor (FIG. 9, (154, 156)), which is bonded onto, integrated onto or printed onto the substrate (col. 13, lines 39-40) and having two conductive pads or other conductive terminal areas where electrical connection to the antenna is capable of being made (col. 12, lines 8-11);

an RFID tag or smart card transceiver integrated circuit (FIG. 9, 150) integrated on the substrate so as to have RF input/output terminals which are electrically coupled to the terminal areas of the antenna (col. 11, lines 3-9).

2. Claim 2 is rejected under 35 U.S.C. 102(e) as being anticipated by Tuttle et al. (U.S. Patent 6,375,780).

Tuttle teaches an integrated circuit structure comprising (See FIGS. 1A-15 and related text):

a plastic substrate (FIG. 5A, 68) and a layer of silicon nitride having a thickness such that little or no differential strain between the substrate and the layer occurs at any temperature in the normal operating temperature range of the integrated circuit (col. 13, lines 19-28);

an RFID tag or smart card transceiver integrated circuit (FIG. 9, 150) integrated on the substrate on top of the silicon nitride layer so as to have RF input/output terminals, and having a layer of insulating material (FIG. 9, 158) formed over the integrated circuit (See col. 11, lines 3-9).

an antenna conductor (FIG. 9, (154, 156)), which is bonded onto, integrated onto or printed onto the insulating layer covering the integrated so as to make electrical connection with the RF input/output terminals.

3. Claim 3 is rejected under 35 U.S.C. 102(e) as being anticipated by Tuttle et al. (U.S. Patent 6,375,780).

Tuttle teaches an integrated circuit structure comprising (See FIGS. 1A-15 and related text):

a first plastic substrate (FIG. 5A, 68) and a layer of silicon nitride having a thickness such that little or no differential strain between the substrate and the layer occurs at any temperature in the normal operating temperature range of the integrated circuit (col. 13, lines 19-28);

an antenna conductor (FIG. 9, (154, 156)), which is bonded onto, integrated onto or printed onto the substrate (col. 13, lines 39-40) and having two conductive pads or other conductive terminal areas where electrical connection to the antenna is capable of being made (col. 12, lines 8-11).

Tuttle discloses in (col. 11, lines 3-9 and FIG. 9) an RFID tag or smart card transceiver integrated circuit 150 integrated on the substrate so as to have RF input/output terminals which are electrically coupled to the terminal areas of the antenna but fails to explicitly disclose that an RFID tag or smart card transceiver integrated circuit integrated as one of a very large number of the integrated circuits on a large second plastic or glass substrate using flat panel display manufacturing equipment, the integrated circuit being cut from the second plastic or glass substrate and bonded or otherwise attached to the first plastic substrate and having RF input/output terminals wherein wires connected between the RF input/output terminals of the integrated circuit and the terminal areas of the antenna.

However, even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966.

Response to Amendment

Response to Applicant's Arguments

Applicant's arguments filed 05/01/2003 have been fully considered but they are not persuasive.

In response to Applicant's argument that Tuttle does not teach or disclose a layer of silicon dioxide or silicon nitride having a thickness such that little or no differential strain between the substrate wherein the layer occurs at any temperature in the normal operating temperature range of the integrated circuit, Tuttle discloses wherein the silicon oxide or silicon nitride layer having a thickness of 400 to 10,000 angstroms in one

embodiment and 100 to 400 angstroms in another embodiment (col. 13, lines 4-28).

Inherently, the high Young's Modulus silicon nitride can be optimize between 400 to 10,000 angstroms such that little or no differential strain between the substrate wherein the layer occurs at any temperature in the normal operating temperature range of the integrated circuit.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khiem D Nguyen whose telephone number is (703) 306-0210. The examiner can normally be reached on Monday-Friday (8:00 AM - 5:00 PM).

~~If attempts to reach the examiner by telephone are unsuccessful, the examiner's~~ supervisor, Olik Chaudhuri can be reached on (703) 306-2794. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-9179 for regular communications and (703) 746-9179 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

K.N.
July 2, 2003


Dilip Chaudhuri
Supervisory Patent Examiner
Technology Center 2800
